IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application No. 09/954,508

Applicant: Todorov et al.

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Examiner: Nguyen, Thanh T.

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Commissioner for Patents
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

Applicants request review of the final rejection, dated August 9, 2006, in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. An appeal brief has not yet been filed. This Pre-Appeal Brief Request For Review is submitted for the reason(s) stated on the attached sheets.

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Applicants traverse the final rejection of each of the pending claims 1-50. In an effort to minimize the issues addressed during this review, Applicants have focused upon the independent claims 1, 22, and 44 due to clear errors in the Final Office Action regarding each of these claims. Applicants request pre-appeal brief review of the final rejection because the claimed invention is not unpatentable as obvious over Dorrance et al. U.S. Patent 6,430,598 (the Dorrance '598 patent) in view of Lim et al. U.S. Patent 6,718,550 (the Lim '550 patent).

Applicants' Claimed Invention (Representative Claim 1 with emphasis added)

1. (Original) A process data access server enabling client applications incorporating potentially multiple differing data exchange protocols to access process data stored at potentially many different locations in a process control system, the process data access server comprising:

a device protocol interface facilitating accessing process data storage locations within the process control system;

a set of client data exchange protocol modules enabling client applications to request access to process data storage locations via the process data access server according to particular client data exchange protocols supported by the set of client data exchange protocol modules; and

a data access server engine for executing process data access requests, received by the process data access server via the set of client data exchange protocol modules, by accessing, via the device protocol interface, data storage locations corresponding to the process data access requests, and wherein the data access server engine includes a client application data exchange protocol abstraction layer comprising a set of operations callable by ones of the set of client data exchange protocol modules in response to receipt by the set of client data exchange protocol modules of process data access requests.

Summary of Applicants' Claimed Invention and Summary of Teachings of the Cited References

Applicants initially direct attention to their previous summary of the claimed invention and the cited prior art references on **pages 11-13** of Applicants' previously filed "Reply to Office Action" dated May 1, 2006. In general, Applicants' claimed invention is directed to a particular way of implementing a *process data access server* that facilitates supporting multiple client data exchange protocols through an extensible set of client data exchange protocol modules (note plural form of the terms "protocols" and "modules"). A server engine includes a *client application data exchange protocol abstraction layer* comprising a set of operations callable by ones of the *set of client data exchange protocol modules* in response to receipt of requests from client applications.

As explained previously on **pages 12-13** of Applicants' May 1, 2006, "Reply," the Dorrance patent discloses an *email server* that supports message requests issued by a *single* client in multiple protocols. The multiple protocols are supported by a single converter module 65. The Dorrance patent discloses handling multiple protocols via a single client interface component that handles all requests from clients regardless of their protocol. The Dorrance patent does not disclose the converter 65 as being a module. The Dorrance patent is silent as to the nature of the relationship between the converter 65 and other components of email server 62. The complete absence of any description of a modular (or extensible) design for the email server 62 suggests that the converter 65 is an integral component of the email server 62. Finally, the Dorrance patent does not disclose Applicants' claimed "protocol abstraction layer comprising a set of operations callable by ones of the set of client data exchange protocol modules."

The Lim patent does indeed disclose a set of clients. However, the Lim et al. patent is completely silent with regard to supporting multiple client data exchange protocols through the use of multiple client data exchange protocol modules and therefore does not suggest the modifications to Dorrance that are necessary to render Applicants' claimed invention.

Applicants' Remarks Concerning the Specific Grounds for the Rejection

The Dorrance and Lim patents do not disclose, either alone or in combination, all of the elements of claim 1 (or the other independent claims 22 and 44). Dorrance is deficient in the specific point where the invention recited in claim 1 departs from the prior art – support of multiple data exchange protocols through a set of data exchange protocol *modules*. Furthermore, there is no disclosure of Applicants' disclosed and claimed "data exchange protocol abstraction layer comprising a set of operations callable by ones of the set of client data exchange protocol modules." The Office Action cites the server 62 in support of its asserted teaching of the "abstraction layer" in the Dorrance patent. However, there are no teachings of such a layer in Dorrance.

With regard to the "set of client" data exchange protocol modules recited in the claim, the Office Action concedes that Dorrance does not teach a "set of client" data exchange protocol modules. However, the Office Action does not appreciate the functionality or purpose of Applicants' recited "set of client data exchange protocol modules" or the corresponding "abstraction layer" with which the multiple client data exchange protocol modules interface.

Importantly, the Office Action erroneously references passages in Lim relating to the presence of multiple "clients" – not "client data exchange protocol modules."

Applicants furthermore note the absence of any suggestion/motivation, to one of ordinary skill in the art at the time of the invention, to modify Dorrance in view of the Lim in a manner that renders the claimed invention. The Final Office Action states that combining Lim's multiple clients with Dorrance "would have provided specific functions that can improve and reduce the performance of object in distributed object system". To the extent this statement is understood, it asserts that combining Lim with Dorrance somehow would improve the operation of Dorrance. However, operationally, Dorrance does not seem to have any operational shortcomings for its intended use in an email server system. It is a fully functional system which likely runs in a satisfactory manner using a tightly integrated multiple-protocol message converter.

Importantly, the Dorrance and Lim patents neither disclose nor suggest a need to modularize client request protocol interfaces which, in turn, communicate with a data access server engine via an abstraction layer. The Lim patent discloses multiple clients. The email system disclosed in the Dorrance patent can already handle multiple client requests using multiple different protocols. There is no need to modify Dorrance to accommodate multiple clients using different protocols. Therefore, the claimed invention is not rendered by the combined teachings of Dorrance and Lim.

Applicants further note that the Dorrance patent is directed to an email server and does not constitute a data access server for process control systems. Such control systems comprise a wide variety of discrete and distributed regulatory control systems. However, even given its broadest interpretation, control systems would not appear to include email servers of the type disclosed in Dorrance.

Applicants have traversed the rejection of independent **claims 22 and 44** for the reasons set forth above with regard to **claim 1**. Claim 22 defines a method for responding to client requests by one of a set of client data exchange protocol modules that is neither disclosed nor suggested by the combined teachings of the Dorrance and Lim patents. Claim 44 is directed to dynamically creating the data access server in a way that is neither disclosed nor even remotely suggested in the cited Dorrance and Lim references. The citations to the Dorrance and Lim patents in the rejection of claim 44 have little, if any, relevance to the recited elements of claim 44.

In summary, the present invention is distinguishable from the cited references for a variety of reasons. The invention recited in the presently pending claims is directed to a *process data access server* that supports a variety of client data exchange protocols (e.g., DDE, OPC, SuiteLink, etc.) via a set of protocol modules. The multiple protocol modules interface with a data access server engine via an abstraction layer comprising a generic set of callable operations. While the prior art does indeed disclose supporting multiple protocols, the recited *way* in which multiple client support is provided is neither disclosed nor suggested in Dorrance and Lim.

Respectfully submitted,

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